

Federal Highway Administration
400 Seventh Street, SW
Washington, DC 20590

April 10, 2000

Refer to: HOTO-1

Mr. Pete K. Rahn
Secretary
New Mexico State Highway and
Transportation Department
P.O. Box 1149
Santa Fe, NM 87504-1149

Dear Mr. Rahn:

We have reviewed your March 6 letter to the Federal Highway Administration's (FHWA) New Mexico Division Office regarding your request for experimentation with the Idaho Shield sign at passive highway-rail grade crossings and offer the following comments. As stated in Section 1A-6 of the Manual on Uniform Traffic Control devices (MUTCD), please provide the following in a detailed evaluation plan:

1. Please expand on your data collection plan to provide for close monitoring of the experimentation, especially in the early stages of its implementation. You mentioned your primary source of data would be monitoring collision statistics and to a lesser degree to observe motorist behavior via video equipment. We suggest you increase the amount of motorist behavior data collected, including:
 - Whether the shield modifies how vehicles approach the crossing, i.e., do they stop or slow more often with the shield than without it? This should be observed both during the day and night.
 - Collection of data annually to determine if improvements are found in how drivers approach crossings, whether the improvements last or if they are novel effects.
 - Although not required, it would be beneficial if interviews could be conducted after and out of sight of the crossing that would ask drivers: whether they detected the crossbuck sooner with the Idaho Shield or without it, and whether they have a preference for the crossbuck with the Idaho Shield or without it.
2. Please indicate the proposed locations and associated risk scores for conducting this experiment (this was not enclosed with your letter as indicated).
3. Rather than specify the number of observations that need to be taken for each site, we

would like you to develop your plan so that sufficient data is collected to permit meaningful statistical analysis and interpretation of the results at a 95 percent confidence level.

4. We normally suggest experiments be conducted for 1 year; however, we are willing to approve a three year experimentation in this case. The purpose of experimentations is to evaluate whether a device should be added to the MUTCD.
5. Please provide us a statement indicating, "We agree to restore the experiment site to a state complying with the MUTCD within 3 months following completion of this experiment. We agree to terminate the experiment at any time it is determined that significantly safety hazards are directly or indirectly attributable to the experimentation. We understand FHWA's Office of Transportation Operations may also terminate approval of the experimentation at any time if there is an indication of hazards. If (based on positive results of this experimentation) the State of New Mexico requests a change be made to the MUTCD, we understand that the Idaho shield may remain in place until an official rulemaking action has occurred." The statement in your March 6 letter did not convey this.

For future reference purposes, we have assigned the following official interpretation number and title to your request: "VIII- 56(Ex) - Idaho Shield with Yield Sign." Please refer to this number in future correspondence.

Your request to experiment with the Idaho Shield will be approved, contingent on receipt and review of a more detailed request and experimentation plan including the items requested above. If your staff would like to discuss any of these suggestions prior to submittal of your final plan, please contact Ms. Louisa M. Ward on 202-366-4372.

Sincerely yours,

Jeffrey A. Lindley
Acting Director, Office of Transportation
Operations